

1. I felt that Dr. Hailer kind of put you on the spot in the meeting when she mentioned she'd already showed you her meconium data back in March 2019 and asked you to clarify what your change in response was to the same data now that it's in her report and now that it's published. Can you give me an official statement as your answer to that question, and would you care to clarify for the record the details of that March 2019 meeting?

The March 2019 meeting was originally a meet and greet, the purpose was to introduce myself and Nikia Green to Dr. Hailer as she had recently published a paper on Butte and the Greeley neighborhood, and we had never met. We met at Tech in her conference room. Toward the end of that meeting she showed me a single piece of paper with some numbers on it and explained a little bit about this "new" meconium study that they were working on. I mainly focused on Pb and As results and did not see a large difference. We talked about how there are no reference levels to meconium and there is no way to determine if there are any health effects associated with those levels of metals in meconium.

2. More relevant, now that the data is published with references, and has appeared on the front page of the daily newspaper, causing quite a stir, what is your detailed plan for next steps and a timeframe to complete it? E.G. In your estimation, how long will it take for EPA to conclude from Hailer/McDermott's raw data and additional samples whether we have an issue that needs further attention?

We have sent an official request to Drs. Hailer and McDermott. Dr. McDermott has replied that they will be in contact with us shortly to discuss. In general, for about 30 samples would take about 30-45 days to start to get results back. For the raw data analysis of the output from the instruments used in the study, it should take about 30 days as well.

3. Relative to what you said at the Board of Health meeting about running remaining samples "blind" at an EPA, CDC or independent laboratory, which Katie confirmed there were remaining meconium samples; and her offer to go through in excruciating detail her methods, raw data, etc. -- Have you confirmed that she will send you her (and McDermott's) leftover splits and have you received or officially requested the study's raw data?

See above. The official request has been sent. McDermott acknowledged receipt of the request and said that they will be in contact with EPA shortly. You will have to ask the authors if they are going to provide the information and material requested.

4. Hailer made a very confident statement that she/McDermott had looked through all of their methods, data, etc. and ultimately concluded "No: we didn't make any mistakes." You made a number of statements that clearly indicated a need for EPA to "confirm", "looking at the study further" "delving into the data much deeper" and even went so far as saying "if the Butte data holds up" "if these (data) turnout."

What are the main things you are looking at in the data and what do you make of Hailer's comment that there were no mistakes made?

We can not go into detail on this at this time

4. Hailer and McDermott say in their study's published conclusion that their approach "provided straightforward evidence of elevated exposure to metals in a mining exposed community. The approach was inexpensive, thorough and required no advanced statistical analysis." Further they used the term "potential public health emergency." What is your reaction and assessment to these conclusions.

No comment on the conclusion of "potential public health emergency". It should be noted that there are no reference levels for metals found in meconium.

5. Please explain your experience in toxicology and with EPA and in that experience, what is your assessment/comparison of this particular "pilot" "proof of concept" study and how it is being amplified versus any other examples you've worked with or are aware of?

I joined EPA Denver in the Spring of 2009. I have a bachelor's degree in biology from Midwestern State University and a PhD in Toxicology from Texas A&M University and performed my postdoctoral Fellowship at the University of Louisville School of Medicine in Environmental Cardiology. During my tenure at EPA I have had extensive experience in some of the largest Superfund sites in the nation and have had a focus on mining related superfund sites and the contaminants associated.

7. You mentioned a study from Canada as the "gold standard" of meconium studies, which used >2,000 samples and as relevant study you are looking to for appropriate comparisons. Can you please send that to me and perhaps give me a reason why you hold it in higher regard to the other studies referenced in Hailer's study and in her presentation/comparisons?

The Canadian study is the largest study that I know of in which meconium was collected and analyzed. The large sample size and study design make it a very strong study. Since the study collected samples from across 10 cities and not particularly contaminated areas, the study provides levels of metals in meconium in what one might expect to see in the general population.

8. Do you know anything about the NIH grant proposal Hailer/McDermott submitted and why it was unsuccessful?

No I do not, the grant was submitted to NEIHS (National Institute of Environmental Health Sciences). I have not had any contact with anyone at NEIHS about this grant as it is an entirely separate Federal Agency. The mission of NEIHS is to discover how the environment affects people in order to promote healthier lives. As such, it is in an even better position than EPA to fund and examine such issues.

9. Please feel free to add anything else, any other statements that you would like me to include in the story. Again, don't hesitate to call or email me if you have additional questions. Thanks again!

No comment